

AMENDMENTS TO THE DRAWINGS

Attached hereto in an Appendix are three (3) sheets of drawings to replace three drawing sheets originally filed in this application. The three replacement sheets include FIGS. 1-3 to replace the three original sheets containing FIGS. 1-3, respectively.

REMARKS

1. In response to the Office Action mailed November 3, 2009, Applicant respectfully requests reconsideration. Claims 1-12, 14, 15 and 18-22 were last presented for examination. Claims 13, 16 and 17 were withdrawn from consideration. In the outstanding Office Action, claims 1-5, 14, 15 and 18-22 were rejected. By the foregoing Amendments, claims 1-22 have been cancelled and claims 53-85 have been added. Thus, upon entry of this paper, claims 53-85 will be pending in this application. Of these thirty-three (33) claims, three (3) claims (claims 53, 65 and 77) are independent.
2. Based upon the above Amendments and following Remarks, Applicant respectfully requests that all outstanding objections and rejections be reconsidered and withdrawn.

Amendments to the Drawings

3. Applicant hereby submits Replacement Drawings for originally filed FIGS. 1-3.
4. In the Office Action, the Examiner objected to the drawings and required a replacement drawing for FIG. 1 in which FIG. 1 is designated by a legend such as “Prior Art”.
5. In the replacement drawing for FIG. 1, Applicant has added the label “(PRIOR ART)”. Accordingly, Applicant respectfully requests that the objection to the drawings be withdrawn.
6. In the replacement drawing for FIG. 2, Applicant has corrected FIG. 2 to illustrate separator 27 consistent with the description of separator 27 in the specification. Additionally, in FIG. 2, as originally filed, one of the holes was labeled “19”. In the replacement drawing for FIG. 2, Applicant has corrected this informality so that the hole is now labeled “29”.
7. In the replacement drawing for FIG. 3, battery 50 is more clearly illustrated.

Allowable Subject Matter

8. Applicant thanks the Examiner for indicating that claims 6-13, 16 and 17 contain allowable subject matter, and that claims 14 and 15 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, second paragraph.

Claim Rejections

9. Claims 14, 15 and 22 are rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite. Additionally, claims 1-5, 21 and 22 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 5,569,551 to Pedicini et al. (hereinafter "Pedicini"). Furthermore, claims 18-20 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Pedicini in view of U.S. Patent No. 6,602,629 to Guo et al. (hereinafter "Guo"). Applicant has cancelled claims 1-5, 14, 15 and 18-22, thereby rendering these rejections moot.

New Claim 53

10. Applicant's new claim 53 recites, in part, "[a] metal-air battery comprising: first and second cathodes; first and second positive contacts electrically connected to the first and second cathodes, respectively; an anode . . . and a negative contact electrically connected to the anode and electrically insulated from the positive contacts, wherein the positive and negative contacts form at least a substantial portion of a casing of the battery." (See, Applicant's claim 53, above). For the Examiner's benefit, Applicant will briefly explain why new claim 53 is patentable over Pedicini.

11. In the Office Action, the Examiner states that "[d]ependent claim 6 recites, among other features, that a casing of the button battery is formed by the positive contact and negative contact together with an insulating gasket. Pedicini et al., the closest prior art, teaches casing members (21, 22) that are electrically insulating and do not function as electrical contacts. Accordingly, the subject matter of claim 6 is not taught or fairly suggested by Pedicini et al." (See, Office Action, pages 5-6).

12. Applicant submits that Applicant's claim 53 is allowable for reasons similar to those identified by the Examiner in the Office Action. As noted by the Examiner, Pedicini "teaches casing members (21, 22) that are electrically insulating and do not function as electrical contacts." (See, Office Action, page 5-6). Pedicini is generally directed to "a dual air electrode metal-air cell having a casing including an upper cathode mask wall, a lower cathode mask wall, and a plurality of side walls." (See, Pedicini, col. 2, lns. 10-13). Pedicini discloses a casing 20 comprising mask walls 21 and 22, and side walls 23. (See, Pedicini, col. 4, lns. 57-61). In

addition, various tabs extend from recesses in the casing and serve as positive and negative terminals for the cell. (*See*, Pedicini, col. 6, lns. 39-43; and col. 7, lns. 21-26).

13. Consistent with the Examiner's position, Applicant submits that Pedicini fails to disclose "wherein the positive and negative contacts form at least a substantial portion of a casing of the battery," as recited in Applicant's claim 53. Moreover, Applicant submits that Pedicini discloses positive and negative terminals for the cell in the form of tabs that *extend from recesses in the casing*, and not "wherein the positive and negative contacts form at least a substantial portion of a casing of the battery," as recited in Applicant's claim 53. (*See*, Pedicini, col. 6, lns. 39-43, and col. 7, lns. 21-26). For at least these reasons, Applicant also submits that the subject matter of Applicant's claim 53 is not rendered obvious by Pedicini. Accordingly, Applicant respectfully submits that Applicant's claim 53 is in condition for allowance.

New Claim 65

14. Applicant's new claim 65 recites, in part, "[a] metal-air battery comprising: first and second cathodes; first and second positive contacts electrically connected to the first and second cathodes, respectively; an anode . . . and a negative contact electrically connected to the anode, wherein the positive and negative contacts, together with an insulating gasket, form at least a substantial portion of a casing of the battery." (*See*, Applicant's claim 65, above).

15. Applicant respectfully submits that Applicant's claim 65 is in condition for allowance at least for reasons similar to those discussed above with regard to Applicant's claim 53.

New Claim 77

16. Applicant's new claim 77 recites, in part, "[a] metal-air battery comprising: first and second cathodes; first and second positive contacts electrically connected to the first and second cathodes, respectively; an anode . . . a negative contact electrically connected to the anode and comprising at least one aperture configured to allow air into the battery to provide oxygen for reduction at the second cathode; and a casing comprising at least a portion of the negative contact and configured to allow air into the battery to provide oxygen for reduction at the first cathode." (*See*, Applicant's claim 77, above).

17. Applicant submits that Pedicini discloses positive and negative terminals for the cell in the form of tabs that extend from recesses in the casing, and fails to disclose that any of those tabs “compris[es] at least one aperture configured to allow air into the battery to provide oxygen for reduction at the second cathode,” as recited in Applicant’s claim 77. Rather, Pedicini discloses that “cathode mask walls 21, 22 define a plurality of cortically shaped openings 26,” and that “ambient air . . . **enters through the mask walls 21, 22** and travels to the cathodes 50, 60.” (See, Pedicini, col. 5, lns. 5-6, and col. 6, lns. 15-16; emphasis added). Thus, Applicant submits that Pedicini discloses that air is provided to the cathodes through the mask walls 21, 22, which the Examiner recognizes “are electrically insulating and do not function as electrical contacts.” (See, Office Action, page 5-6). For at least these reasons, Applicant submits that Pedicini fails to disclose or render obvious “a negative contact electrically connected to the anode and comprising at least one aperture configured to allow air into the battery to provide oxygen for reduction at the second cathode,” as recited in Applicant’s claim 77.

18. Accordingly, Applicant respectfully submits that Applicant’s claim 77 is in condition for allowance.

Dependent claims

19. The dependent claims incorporate all the subject matter of their respective independent claims and add additional subject matter which makes them independently patentable over the art of record. Accordingly, Applicant respectfully asserts that the dependent claims are also allowable over the art of record.

Conclusion

20. In view of the foregoing, this application should be in condition for allowance. A notice to this effect is respectfully requested.

21. Applicant reserves the right to pursue any cancelled claims or other subject matter disclosed in this application in a continuation or divisional application. Any cancellations and amendments of above claims, therefore, are not to be construed as an admission regarding the patentability of any claims and Applicant reserves the right to pursue such claims in a continuation or divisional application.

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Respectfully submitted,

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APPENDIX